

REMARKS/ARGUMENTS

Applicant responds herein to the Office Action dated November 2, 2006. A Petition for Extension of Time (three months) and the fee therefor are submitted herewith.

Claims 1, 2, 4, 5, 7, 9-16, 18, 20-22, 26-31, 33, 34, 36 and 37 are pending in the present application with claims 1, 18, 22, 26, 30 and 37 being in independent form.

Applicants appreciate the Examiner's indication that the double patenting rejection has been withdrawn in light of the Terminal Disclaimer filed with Applicants' previous response.

Claims 1-5, 7, 9-16, 18 and 20-36 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. to Kaiya ("Kaiya") in view of U.S. Patent No. 5,434,615 to Matumoto ("Matumoto"). Reconsideration of this rejection is respectfully requested.

The Examiner contends that the combination of Kaiya and Matumoto discloses substantially all of the features of claim 1, for example, of the present application. Applicants respectfully disagree.

At page 2 of the Office Action, the Examiner responds to the Applicants previous arguments. The Examiner apparently understands Applicants previous argument to be that the Kaiya reference does not disclose "a timing signal generation circuit." The Examiner argues that this is incorrect since the element 33a of Kaiya in Fig. 4 is the same synchronization circuit as element 33a in Fig. 1 in that element 78 is a timing signal generation circuit that can generate a timing signal for the imaging apparatus, including the imaging device 4a of Fig. 1. The Examiner notes that the timing signal generation circuit is incorporated in imaging apparatus 4a of Fig. 1. Applicants respectfully disagree.

As has been previously explained, in claim 1, the timing signal generation circuit is "incorporated in the connector." As has been previously noted and as is set forth in the present Office Action, in Kaiya "the timing signal generation circuit is incorporated in the imaging apparatus..." (emphasis added). This is also illustrated in Fig. 1, for example, of Kaiya, which illustrates the circuit 33a in the camera controller 4a which provides image signals to the display 5a. Thus, in Kaiya, the element 33a is included in the imaging device and is not in a "connector," as is required by claim 1, for example, of the present application. Independent claims 18, 22, 26, 30 and 37 include similar, but not identical limitations.

The Examiner further understands Applicants previous argument to include an assertion that the prior art does not disclose a "phase adjustment circuit." The Examiner disagrees with this

argument and argues that Kaiya's Fig. 1 discloses a common phase adjustment circuit 33a that is used to vary the timing of the signals for driving the imaging device of the imaging apparatus 4a. The Examiner notes that Kaiya does not specifically disclose that the circuit 33a is operable to change the phase of the drive signal and to input the drive signal to the imaging device via the signal transmission line, but argues that Matumoto discloses this feature. Applicants respectfully disagree.

First, as is noted above, the circuit 33a of Kaiya, which the Examiner also argues is "a timing signal generation circuit" is positioned in the imaging apparatus 4a. Thus, the circuit 33a of Kaiya is not "incorporated in the connector," as is required by claim 1 of the present application, for example.

However, even if the Kaiya did disclose this feature, the references cited by the Examiner still fail to disclose all of the features, of claim 1, for example, of the present application. As noted above, the Examiner has conceded that Kaiya does not disclose that the circuit 33a is operable to change the phase of the driver signal and to input the drive signal with the changed phase to the imaging device via the transmission line. The Examiner cites Matumoto as allegedly disclosing this, however, Matumoto also fails to disclose this feature.

In addition, the Examiner equates the "element 4a" of Kaiya to the "imaging apparatus" in the present invention. It is noted, however, that the "element 4a" in Fig. 1 of Kaiya does not comprise any imaging device. Rather, the "element 4a" in Fig. 1 of Kaiya serves for processing a signal from the solid state imaging device (SID) provided to the endoscope, which is separate from the imaging device. This is clearly observable from the disclosures in Figs. 1, 2, etc. of Kaiya.

Furthermore, the Examiner equates the "element 32a within element 4a" in Fig. 1 of Kaiya to the "video processing unit" in the present invention. But, in the present invention, the "video processing unit" is connected via the connector to the imaging apparatus, i.e., the imaging apparatus and the video processing unit are separate ones.

Matumoto discloses providing a sampling pulse generator (19) together with a sample-and-hold (correlated double sampling (CDS)) circuit (18) and a driving circuit of a CCD (51) See Figs. 9 and 11 of Matumoto, for example. Matumoto samples and holds the video signal using a sampling pulse, which corresponds to the length of the endoscope to enable signal processing. As illustrated in Figs. 1, 10, 11 and 12 of Matumoto, however, the phase adjusted signals are

supplied to the CDS circuit 18 and not to the imaging device (4). Thus, Matsumoto also fails to disclose, “a phase adjustment circuit, incorporated in the connector, operable to change the phase of the drive signal and input the drive signal of which the phase has been changed to the imaging device via the signal transmission line,” as is required by claim 1 of the present application, for example. In contrast, in Matumoto, phase adjustment is provided to the sampling circuit CDS(18). Independent claims 18, 22, 26, 30 and 37 includes similar, but not identical limitations.

One advantage provided by the present invention is that the changes to the drive signal provided by the timing signal generation circuit and the phase adjustment circuit in the connector allow the image pick-up signal that is inputted to the video signal processing circuit to be kept constant. As a result, it becomes unnecessary to adjust the processing timing at the site of the signal processing circuit. Hence, it is possible to simplify the circuits in the video signal processing unit.

Thus, as shown above, neither Kaiya nor Matsumoto, nor their combined teachings, can be said to disclose or suggest the subject matter presented in the independent claims.

The remaining claims in the application are all dependent from one or the other of the aforementioned independent claims and include their limitations. These claims also include further features which distance them even more apart from the prior art. Accordingly, all of the claims are submitted to be patentable thereover.

In light of the remarks made herein, it is respectfully submitted that claims 1, 2, 4, 5, 7, 9-16, 28, 20-22, 26-31, 33, 34, 36 and 37 are patentable over the cited art and are in condition for allowance.

Favorable reconsideration of the present application is respectfully requested.

THIS CORRESPONDENCE IS BEING
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Respectfully submitted,



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